Statement of Considerations

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REQUEST BY CATERPILLAR INC. FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN RIGHTS IN SUBJECT INVENTIONS MADE IN THE COURSE OF OR UNDER UT-BATTELLE, LLC SUBCONTRACT NO. 4000023718 UNDER PRIME CONTRACT NO. DE-AC05-000R22725; DOE WAIVER DOCKET W(A)-03-045 [ORO-783]

Caterpillar Inc. (Caterpillar) has made a timely request for an advance waiver of worldwide rights in Subject Inventions made in the course of or under UT-Battelle, LLC Subcontract No. 4000023718, entitled, "Development of Titanium Component Applications in Heavy Duty Diesel Engines" under UT-Battelle Prime Contract No. DE-AC05-000R22725 and under certain subcontracts entered thereunder with parties who do not qualify for treatment under Public Law 96-517 or National Laboratories. The scope of work involves developing and demonstrating one or more new or improved beneficial applications of titanium in a heavy-duty diesel engine by developing a component for heavy-duty diesel engines that utilize various forms of titanium such as to be made from titanium, titanium alloy, titanium intermetallic alloy, or titanium metalmatrix composite. Specifically, the development effort includes a detailed description and drawings of the component, complete specification of materials, and estimated improvement in engine performance resulting from use of the component. The work is sponsored by the Office of FreedomCar and Vehicle Technologies.

The dollar amount of the subcontract is \$999,918.00 with Caterpillar cost sharing \$499,963.00, or 50.00% of the subcontract. The period of performance is June 1, 2003 through May 31, 2005.

The work under the Development of Titanium Component Applications in Heavy Duty Diesel Engines Program will be managed by Caterpillar's Technical and Research Center in Mossville, Illinois.

Caterpillar expects to contribute funds and resources in excess of \$1,000,000.00 within the next three (3) years over and above the \$499,963.00 DOE funds identified in the cost share/cost reimbursement contract in support of Development of Titanium Component Applications in Heavy Duty Diesel Engines.

Caterpillar has considerable experience in developing advanced materials and material related processes for earth moving machine applications as well as advanced materials and processes for diesel and natural gas engines. In addition, Caterpillar has made significant internally funded investments in research, development and manufacturing of components for machines and engines. Of particular importance is Caterpillar's demonstrated technical competence in thermal spray applications, wear and corrosion resistant materials, thin film coatings, ceramics, metal matrix composites, high temperature steels, powdered metallurgy, as well as advanced manufacturing techniques including heat treatment, casting, combustion technology, fuel system technology, air systems technology, exhaust gas aftertreatment technology, engine component technologies and engine electronic controls technology. Such technical competence is evidenced in the over 2000 U.S. patents owned by Caterpillar or its subsidiaries, many of which are related, directly or indirectly, to Caterpillar's materials and manufacturing technologies.

Caterpillar is the world's largest manufacturer of earth-moving, materials handling, construction and mining equipment and is a world leader in the design, development, production and marketing of medium and heavy duty diesel engines, gas engines, and industrial gas turbine engines. Caterpillar is a global company with primarily U.S. based manufacturing facilities. In recent years, Caterpillar's direct sales of machines, engines

and replacement parts to the U.S. Government were less than 1% of Caterpillar's total sales each year. Considering its market position, it has the capability to commercialize engine technology developed under the subcontract.

If the requested waiver is approved, the Patent Rights-Waiver clause will be included in the subcontract. Petitioner has accepted the Patent Rights-Waiver clause including march-in rights, granting of licenses to background patents necessary for practicing subject inventions, retention by the government of a license, and preference for U.S. industry.

In addition, Caterpillar agrees that any product, process or service using any intellectual property arising from the performance of this subcontract, including that resulting from a Subject Invention, shall be manufactured, practiced or provided substantially in the United States, unless Caterpillar can demonstrate that it is not commercially feasible or reasonable to do so. In the event that Caterpillar does not manufacture products embodying waived inventions substantially in the United States, Caterpillar and the DOE shall agree on terms and conditions appropriate to DOE's investment in the waived inventions not substantially manufactured in the United States. With respect to Caterpillar's subcontracts, this provision will be flowed down and be applicable to such subcontracts. In the event of noncompliance with the terms and conditions of this provision, the waiver as it applies to the Subcontractors' inventions will be suspended.

With respect to all subcontractors not subject to P.L. 96-517, as well as DOE national laboratories, it is the intention of Caterpillar to allow any subcontractor, who cost shares, the opportunity to retain title to inventions made in the performance of the subcontract. In addition, Caterpillar and the subcontractor would be free to negotiate, at arms' length, appropriate terms for the division and utilization of intellectual property rights developed under the proposed subcontract.

It is recognized that subcontractors not subject to P.L. 96-517 have the right to request a waiver in their own subcontracts regardless of whether they cost share and can also request a waiver of rights in identified inventions on a case-by-case basis. Accordingly, the waiver of subcontract inventions to Caterpillar only applies where the subcontractor acknowledges its right to ask for greater rights in its subject inventions and agrees to allow Caterpillar to obtain rights in these inventions by providing a letter to DOE containing such a statement or by signing a subcontract having terms indicating such acknowledgment and agreement. Further, Caterpillar acknowledges that it is to negotiate within the bounds of minimum rights and conditions required by the cooperative agreement and this waiver with subcontractors. These minimum rights include a U.S. Government license, march-in rights, and U.S. Preference and Competitiveness provisions.

Granting of the waiver should have little effect on competition since there are several technology options, this being one of many previously or yet-to-be developed in the marketplace, thus there should not be undue market concentration of Caterpillar products.

Grant of the requested waiver should serve as encouragement to other DOE contractors that significant cost sharing will be recognized as an acceptable consideration for granting greater rights in Subject Inventions.

In view of the acceptable level of cost sharing by Caterpillar and the objectives and considerations set forth in 10 CFR 784.4, all of which have been considered, it is recommended that the requested waiver for worldwide rights be granted.

Esther L. Roberts Patent Attorney

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December 7, 2004

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Based on the foregoing Statement of Considerations and the representations in the attached Waiver Petition, it is determined that the interest of the United States and the general public will best be served by a waiver of U.S. and foreign patent rights, and therefore, the waiver is granted. This waiver shall not apply to a modification or extension of the cost-shared subcontract where, through such a modification or extension the purpose scane or cost of the subcontract base been substantially effered extension, the purpose, scope or cost of the subcontract has been substantially altered.

CONCURRENCE:

Sidney Diamond

Program Manager EE/Office of FreedomCar and Vehicle

Technologies

APPROVAL:

Paul A. Gottlie

Assistant General Counsel for Technology Transfer and Intellectual Property

Statement of Considerations

REQUEST BY INTERMAGNETICS GENERAL CORPORATION FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN RIGHTS IN SUBJECT INVENTIONS MADE IN THE COURSE OF OR SUBCONTRACT NO. 4000003129 UNDER DOE PRIME CONTRACT NO. DE-AC05-00OR22725; DOE WAIVER DOCKET W(A)2003-046 [ORO-784]

Petitioner, Intermagnetics General Corporation, has made a timely request for an advance waiver to worldwide rights in Subject Inventions made in the course of or under Subcontract No. 4000003129 under DOE Prime Contract DE-AC05-00OR22725 with UT-Battelle, LLC. The scope of this work is for continuous processing of RE-123 High Temperature Superconductive (HTS) tapes having certain minimum performance characteristics. This work is sponsored by the Office of Superconductivity for Electric Systems.

The anticipated total dollar amount of the subcontract is \$4,525,476 of which Petitioner will be cost-sharing 50%. The period of performance is from June 7, 2000 through April 30, 2004.

Petitioner's experience and expertise will contribute substantially to commercialization of the inventions made under the agreement. Petitioner is a leading manufacturer in the areas of applied superconductivity, magnetics, cryogenics and refrigeration and has significant experience in commercializing state-of-art projects in a timely and profitable manner. In addition, beginning with the discovery of HTS materials, IGC has been at the forefront of developing this technology for commercial applications. Petitioner has formed strategic relationships and joint development efforts with DOE national laboratories, the New York State Energy Research and Development Authority and commercial companies. Petitioner has also designed, manufactured and tested HTS subsystems for generator, fault current controller, cables and transformers.

Petitioner has a substantial financial investment directly related to the work to be performed under this agreement. Over \$30 million has been invested in Petitioner's HTS materials and device activity, including the Government funding noted above. Petitioner, in order to more effectively commercialize the HTS technology, has formed a new subsidiary, SuperPower, Inc. SuperPower, Inc. contains substantially all the tangible assets of Petitioner's HTS power-related activities, including HTS transformer, fault current controller, fault current limiter and second generation wire. Furthermore, it is anticipated that the second generation HTS materials being developed under this subcontract will assist in addressing the needs of the nation's aging utility infrastructure.

Petitioner has agreed to the standard DOE waiver terms and conditions, including march-in rights, background patent and data provisions, retention by the government of a license, preference for U.S. industry and U.S. Competitiveness clauses.

Petitioner has also agreed that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States, unless the Petitioner can show to the satisfaction of DOE that it is not commercially feasible to do so. In the event that the waived invention is not substantially manufactured in the United States and DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Petitioner has further agreed to make the above condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees. Should the Petitioner or other such entity receiving rights in any waived invention undergo a change in ownership

amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by DOE.

Granting of the waiver should have little effect on competition since there are several competing technology options in the field of superconductive products for generation, transfer, transmission and storage of electrical power.

Grant of the requested waiver should serve as encouragement to other DOE contractors and subcontractors that significant cost sharing will be recognized as an acceptable consideration for granting greater rights in Subject Inventions.

In view of the substantial level of cost sharing by Petitioner and the objectives and considerations set forth in 10 CFR 784.4, all of which have been considered, it is recommended that the requested waiver for worldwide rights be granted.

Michael B. Hiffin Emily G. Schneider Assistant Chief Counsel for Intellectual Property

> MAR 1 2004 Date:

Based on the foregoing Statement of Considerations and the representations in the attached Waiver Petition, it is determined that the interests of the United States and the general public will best be served by a waiver of U.S. and foreign patent rights, and therefore, the waiver is granted. This waiver shall not apply to a modification or extension of the cost-shared subcontract where, through such a modification or extension, the purpose, scope or cost of the subcontract has been substantially altered.

CONCURRENCE:

James G. Daley Program Director

Superconductivity for Electric Systems

Date: Mrch 4,2004

APPROVAL:

Paul A Gottlieb

Assistant General Counsel for

Technology Transfer and Intellectual Property

Date: 3-10-09